APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,480	12/06/2001	Mark John McGrath	450110-03716	3228

			EXAMINER
22850	7590	09/21/2006	CHOWDHURY, NIGAR

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ART UNIT	PAPER NUMBER
2621	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/006,480	MCGRATH ET AL.
	Examiner	Art Unit	
	Nigar Chowdhury	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 July 2006</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*13-35*</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>*13-35*</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>06 December 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed on July 6, 2006 have been fully considered but they are not persuasive.

In re pages 11-13, applicant argues that Fuller merely discloses a clip marking function for marking start and end point of a video clip according to input from the camera image and fails to disclose or suggest new claim 13 or any claim depending therefrom. Furthermore, applicant argues that image property data includes activity measure data which is indicative of a change of the image content or audio content between video images and fails to disclose or suggest new claim 16 or any claim depending therefrom. Moreover, applicant argues that image property data includes representative image data indicative of a predominant overall content of video images and fails to disclose or suggest new claim 19 or any claim depending therefrom. Applicant also argues that image property data includes interview detection data indicative of an interview sequence of the video images. The video images of the interview sequence include facial images and audio signals that are associated with the video images of the interview sequence comprising speech and fails to disclose or suggest new claim 22 or any claim depending therefrom. Applicant argues that a feature extraction unit extracts image feature vector data and metadata extraction unit derives image property data from the image feature vector data and fails to disclose or suggest new claim 26 or any claim depending therefrom

In response, the examiner respectfully disagrees. Fuller et al discloses from Col. 2 line 53-Col. 3 line 8, Col. 4 lines 36-46, that "Metadata generated may include:

Image Feature Vectors

Keyframe storyboards

Various text attributes (closed-captioned (CC) text, teletext, time/date, media properties such as frame-rates, bit-rates, annotations, and so forth)

Speech-to-text & keyword spotting

Speaker identification (ID)

Audio classifications & feature vectors

Face identification/recognition

Optical Character Recognition (OCR)

Other customized metadata via extensibility mechanisms:

GPS data; camera position & properties; any external collateral data; and so forth." And "In another aspect of the present invention, there is an integrated data and realtime metadata capture method, comprising sensing analog signals, converting the analog signals to a digital representation of one or more forms of media content, compressing the digital media content, automatically extracting metadata in realtime from the digital media content simultaneously with the compressing of the digital media content, and storing the digital media content and the metadata, wherein selected portions of the metadata are associated with selected portions of the digital media content." Fuller discloses that metadata extraction unit has image feature vector and audio feature vector data in real time capture image or group of images (Claim 13).

When face changes and speech change it can be indicate by the face recognition and

speaker id on the metadata (Claim 16). By the definition of the predominant face

recognition and speaker id is more common in the video images (Claim 19). Interview

includes video and audio data. Fuller discloses face recognition and speaker id which

will make the interview sequence of video images (Claim 22). Fuller also discloses

metadata extraction unit which has image feature vector (Claim 26)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1.   Claims 13-35 are rejected under 35 U.S.C. 102(b) as being anticipated by US

Patent No. 6,833,865 by Fuller et al.

2.   Regarding claim 13, a camera-recorder apparatus comprising: (Fig. 1, Col. 1 line

29-31):

- An image capture device operable to capture a plurality of video images

  (Col. 2 line 53-55)

- A storage medium by which video images are stored for later retrieval

  (Col. 2 line 1-3)

- A feature extraction unit operable to derive image feature vector data (Col. 2 lines 62-Col. 3 lines 8) from image content of at least one of video images substantially in real time at capture of video images, image feature vector data being associated with respective images (Col. 2 line 5-8)

- A metadata extraction unit operable to derive image property data from image feature vector data substantially in real time at capture of video images, image property data being associated with respective images or groups of images and including sub shot segmentation data (Col. 2 line 53-Col. 3 line 8, Col. 4 lines 36-46)

- A data path by which camera-recorder apparatus is operable to transfer derived image property data to an external data processing apparatus (Col. 3 line 6-8, Col. 6 line 24-36).

3.   Regarding claim 14, the apparatus according to claim 13, in which image feature vector data includes at least distribution data and /or face recognition data (Col. 2 line 62-Col. 3 line 8)

4.   Regarding claim 15, the apparatus according to claim 14, in which metadata extraction unit is operable to derive sub shot segmentation data from color distribution data (Col. 6 lines 53-57)

5.   Regarding claim 16, a camera-recorder apparatus comprising: (Fig. 1, Col. 1 line

29-31):

- An image capture device operable to capture a plurality of video images

   (Col. 2 line 53-55)

- A storage medium by which video images are stored for later retrieval

   (Col. 2 line 1-3)

- A feature extraction unit operable to derive image feature vector data (Col.

   2 lines 62-Col. 3 lines 8) from image content of at least one of video

   images substantially in real time at capture of video images, image feature

   vector data being associated with respective images (Col. 2 line 5-8)

- A metadata extraction unit operable to derive image property data from

   image feature vector data substantially in real time at capture of video

   images, image property data being associated with respective images or

   groups of images, image property data including activity measure data

   indicative of change of image content or audio content between video

   images (Col. 2 line 53-Col. 3 line 8, Col. 4 lines 36-46. There is face

   recognition and speaker id to detect change)

- A data path by which camera-recorder apparatus is operable to transfer

   derived image property data to an external data processing apparatus

   (Col. 3 line 6-8, Col. 6 line 24-36).

6.   Regarding claim 17, the apparatus according to claim 16, in which image feature

vector data includes at least color distribution data (Col. 6 lines 53-57) and/or face

recognition data (Col. 2 line 62-Col. 3 line 8)

7.   Claim 18 is rejected for the same reason as discussed in corresponding claim 15

above.

8.   Regarding claim 19, a camera-recorder apparatus comprising: (Fig. 1, Col. 1 line

29-31):

- An image capture device operable to capture a plurality of video images
  (Col. 2 line 53-55)

- A storage medium by which video images are stored for later retrieval
  (Col. 2 line 1-3)

- A feature extraction unit operable to derive image feature vector data (Col.
  2 lines 62-Col. 3 lines 8) from image content of at least one of video
  images substantially in real time at capture of video images, image feature
  vector data being associated with respective images (Col. 2 line 5-8)

- A metadata extraction unit operable to derive image property data from
  image feature vector data substantially in real time at capture of video
  images, image property data being associated with respective images or
  groups of images, image property data includes representative image data
  indicative of predominant overall content of video images (Col. 2 line 53-

Col. 3 line 8, Col. 4 lines 36-46. By the definition of the predominant, face

recognition and speaker id is most common in the video images)

- A data path by which camera-recorder apparatus is operable to transfer

  derived image property data to an external data processing apparatus

  (Col. 3 line 6-8, Col. 6 line 24-36).

9.   Claim 20 is rejected for the same reason as discussed in corresponding claim 17

above.

10.   Claim 21 is rejected for the same reason as discussed in corresponding claim 15

above.

11.   Regarding claim 22, a camera-recorder apparatus comprising: (Fig. 1, Col. 1 line

29-31):

- An image capture device operable to capture a plurality of video images

  (Col. 2 line 53-55)

- A storage medium by which video images are stored for later retrieval

  (Col. 2 line 1-3)

- A feature extraction unit operable to derive image feature vector data (Col.

  2 lines 62-Col. 3 lines 8) from image content of at least one of video

  images substantially in real time at capture of video images, image feature

  vector data being associated with respective images (Col. 2 line 5-8)

- A metadata extraction unit operable to derive image property data from image feature vector data substantially in real time at capture of video images, image property data being associated with respective images or groups of images (Col. 2 line 53-Col. 3 line 8, Col. 4 lines 36-46)

- A data path by which camera-recorder apparatus is operable to transfer derived image property data to an external data processing apparatus (Col. 3 line 6-8, Col. 6 line 24-36)

In which

- Camera-recorder apparatus is operable to capture an audio signal associated with video images (Col. 3 lines 15-17)

- Feature extraction unit is operable to derive audio feature vector data for portions of audio signal associated with at least one of video images (Col. 2 line 62-Col. 3 line 8, Fig. 1 (200), Col. 5 lines 22-31)

- Image property data includes interview detection data indicative of an interview sequence of video images (interview can be any video image with audio, Col. 5 lines 22-31), video images of interview sequence including facial images and audio signal that is associated with video images of interview sequence comprising speech. (Col. 2 line 62-Col. 3 line 8)

12. Claims 23, 24 are rejected for the same reason as discussed in corresponding claim 17 above.

13.   Regarding claim 25, the apparatus according to claim 24, in which audio feature

vector data comprises speech detection data and metadata extraction unit is operable

to derive interview detection data from face recognition data and speech detection data

(Col. 2 line 62-Col. 3 line 8)

14.   Claim 26 is rejected for the same reason as discussed in corresponding claim 22

(first half) above.

15.   Claim 27 is rejected for the same reason as discussed in corresponding claim 22

(second half) above.

16.   Regarding claim 28, the apparatus according to claim 26, in which image

property data comprises any or all of:

- Representative image data indicative of the predominant overall content of

    video images (Col. 2 line 53-Col. 3 line 8, Col. 4 lines 36-46. By the

    definition of the predominant, face recognition and speaker id is most

    common in the video images)

- Activity measure data indicative of a change of image content or audio

    content between video images (Col. 2 line 53-Col. 3 line 8, Col. 4 lines 36-

    46. There is face recognition and speaker id which detect change in

    image and audio)

- Sub shot segmentation (multiple images captured by camera could be sub shot segment, Col. 2 lines 53-60)

17. Claim 29 is rejected for the same reason as discussed in corresponding claim 22 (second half) above.

18. Claims 30,31 are rejected for the same reason as discussed in corresponding claim 17 above.

19. Regarding claim 32, the apparatus according to claim 28, in which:

- Image feature vector data comprises at least one class of data selected from color distribution data and face recognition data (Col. 6 lines 53-57, Col. 3 line 4)

- Metadata extraction unit is operable to derive representative image data from color distribution data (Col. 2 line 62-Col. 3 line 8)

20. Claim 33 is rejected for the same reason as discussed in corresponding claim 32 above.

21. Regarding claim 34, the apparatus according to claim 28, in which

- Image property data comprises interview detection data indicative of an interview sequence of video images, video images of interview sequence

comprising facial images and audio signal that is associated with video images of interview sequence comprising speech: (interview can be any video image with audio, Col. 5 lines 22-31)

- Image feature vector data includes at least color distribution data and/or face recognition data (Col. 6 lines 53-57, Col. 3 line 4)

- Audio feature vector data comprises speech detection data (Col. 2 line 62-Col. 3 line 8)

- Metadata extraction unit is operable to derive interview detection data from face recognition data and speech detection data (interview has image and speech, metadata has face recognition and speech detection on Col. 3 lines 3-4)

22. Claim 35 is rejected for the same reason as discussed in corresponding claim 32 above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the
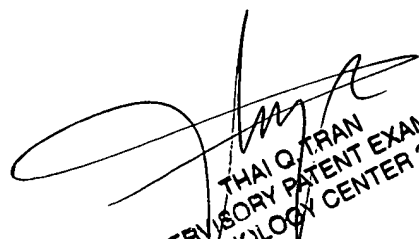
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nigar Chowdhury whose telephone number is 571-272-8890. The examiner can normally be reached on 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NC
09/15/2006